Claims

- 1. An ordinary physical construction kit of elementary particle gauge vector elements and symmetries which in an applied arbitrary unit scale and primarily within a separate Cartesian co-ordinate segment, by an exemplified direct structural build and installation as well as by equivalent operations also covered by the invention in computer or other figurative medium, exactly and exhaustively manufactures the real space elementary particle spectroscopy.
- 2. The total collection of Nucleon isospin and global co-ordination vectors and interchangeable quark-gluon binding matrix embodied in the Z and W Gauge vector Bosons and their charge isodoublet symmetries and mass numbers.
- 3. The one-dimensional Lepton symmetries, structural vector elements and arrangements performed as single channel steps of elementary particle transformations and in iterated sequences as the Muon, Electron/Positron, Neutrino and Photon states and their precise mass numbers, electromagnetical charges and other properties.
- 4. The realization of the differential SU(2) x U(1) product geometrical domain of the Mesons and their vector elements as singly performed in elementary particle transformations and in composite embodiment of all real states, in detail produced of the charged and neutral Pions, the Kaons, η , $\rho(770)$, $\omega(783)$ and the ground *Charm* and *Bottom* Mesons and their channels, transformations, electromagnetical charges, masses and other properties.
- 5. The realization of the SO(3) x O(5) orthogonal coset decomposition geometrical domain, symmetries and vector elements of the Baryons and their channels and transformations with detailed manufacture of the basic Baryon supermultiplets, the representative N(1675), Λ "(1670) and Σ (1670) Resonances and all confirmed *Charm* Baryon states and their channels, transformations, electromagnetical charges, masses, J^p numbers and other properties.
- 6. The set of length-, configuration- and orientation-defined structural building elements of individual and combined root vectors and major and minor semiaxes and their mounting both to the global framework and coordination lattice and separate embodiments and accommodation of the particle events therein.